

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. Please cancel claims 11-24.

Listing of Claims

Claims 1-24 (canceled)

25. (new): A multiwall carbon nanotube, the multiwall carbon nanotube comprising:

an outer wall, the outer wall being substantially oxidized wherein the substantial oxidation leads to an electrically insulating effect so that the outer wall of the multiwall carbon nanotube loses its ability to conduct electric current; and

at least one inner wall, the at least one inner wall not being oxidized and wherein the conduction of electricity through the multiwall carbon nanotube is automatically taken over by the at least one inner wall after the substantial oxidation of the outer wall.

26. (new): A multiwall carbon nanotube as in claim 25, further comprising the nanotube being doped with boron nitride.

27. (new): A multiwall carbon nanotube as in claim 25, further comprising the nanotube being bound to a substrate.

28. (new): A multiwall carbon nanotube as in claim 26, further comprising the nanotube being bound to a substrate.

29. (new): A multiwall carbon nanotube as in claim 27, further comprising the substrate being an electronic component.

30. (new): A multiwall carbon nanotube as in claim 28, further comprising the substrate being an electrical component.

31. (new): A process for substantially oxidizing only the outer wall of a multiwall carbon nanotube, wherein the substantial oxidation of only the outer wall leads to an electrically insulating effect and wherein the outer wall of the multiwall carbon nanotube loses its ability to conduct electric current and wherein the conduction of electricity through the multiwall carbon nanotube is automatically taken over by the next inner nanotube, the process comprising:

providing a multiwall carbon nanotube;

subjecting the multiwall carbon nanotube to substantial oxidation; and

isolating the multiwall carbon nanotube treated by this process.

32. (new): The process of claim 31, further comprising carrying out the substantial oxidation by reaction with an acid selected from the group consisting of nitric acid, sulfuric acid, chromic acid, Caro's acid, perchloric acid, iodic acid, and an organic peracid.

33. (new): The process of claim 32, further comprising using sulfuric acid as a mixture with hydrogen peroxide.

34. (new): The process as claimed in any of claims 31 to 33, further comprising carrying out the substantial oxidation of the outer wall of the multiwall carbon nanotube at a temperature up to the boiling point of the respective reaction mixture.

35. (new): The process as claimed in any of claims 31 to 33, further comprising doping the multiwall carbon nanotube with boron nitride.